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EXAMINER
WOZNIAK, JAMES S

ART UNIT	PAPER NUMBER
2626	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/670,126	PETTAY ET AL.
	Examiner	Art Unit	
	JAMES S. WOZNIAK	2626	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>29 July 2009</u>.

2a) ☒ This action is **FINAL.**　　2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-69</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-69</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>23 September 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some *　c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   In response to the office action from 4/29/2009, the applicant has submitted an

amendment, filed 7/29/2009, amending independent claims 1, 23, 44, and 68-69, while arguing

to traverse the art rejection based on the limitation regarding evaluating a score against a static

and a varying standard *(Amendment, Pages 15-16)*. Applicant's arguments have been fully

considered and are addressed below.

Response to Arguments

2.   The applicant's arguments have been fully considered but are moot with respect to the

new grounds of rejection, necessitated by the amended claims and further in view of Sukkar

(U.S. Patent: 5,613,037). Also, the applicant argues that the prior art of record fails to teach

"variable ASR confidence scores that vary with regard to the *script portion*" *(Amendment, Page*

16). In response, the examiner notes that such a limitation is not present in the currently

amended claims *(claim language to this effect was also recommended by the examiner in the*

Office Action from 4/29/2009, Page 7). The claim instead recites evaluating a score against

static *and* variable thresholds which, as is noted below, is not supported by the originally filed

specification. As such, the examiner recommends amending the independent claims to

incorporate this language argued by the applicant and suggested by the examiner, but not

currently claimed. If properly added, these claim amendments would overcome the prior art of

record and the 35 U.S.C. 112, first paragraph rejection.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

4.   **Claims 1-69** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with

the written description requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in the relevant

art that the inventor(s), at the time the application was filed, had possession of the claimed

invention. Independent claims 1, 23, 44, and 68-69 set forth that it is determined whether an

agent complied with a script by evaluating "*a score…*against a static *and* a varying standard*".

The originally filed specification does not describe such an evaluation. Although Page 15, Lines

5-8 of the originally filed specification most closely recite that a score is "evaluated 78 against

predetermined standards… may be static or may vary, and may be included in the ASR

evaluation conditions." The original specification is silent on comparing *a* recognition score to

both static and varying thresholds as the specification describes that one or the other is

alternatively used when evaluating a score. Thus, claims 1, 23, 44, and 68-69 fail to comply with

the written description requirement. Dependent claims 2-22, 24-43, and 45-67 fail to overcome

the preceding written description issues, and thus, are also rejected under 35 U.S.C. 112, first

paragraph as failing to comply with the written description requirement.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   **Claims 1-5, 8-10, 12-24, 28, 30-38, and 41-42** are rejected under 35 U.S.C. 103(a) as

being unpatentable over Walker et al *(U.S. Patent: 6,567,787)* in view of Brockman et al *(U.S.*

Patent: 5,826,240) and yet further in view of Sukkar *(U.S. Patent: 5,613,037)*.

        With respect to **Claim 1**, Walker discloses:

        Conducting at least one voice interaction between the at least one agent and the at least

one client, wherein the at least one agent follows the at least one script via at least one of a

plurality of panels *(recording a spoken interaction between a customer and a service agent,*

wherein the agent reads from a script to conduct the interaction, Col. 7, Lines 10-60; and

evaluating an interaction for a plurality of voice message segments, Col. 5, Line 46- Col. 6, Line

39; and Fig. 6);

        Entering information by the at least one agent according to response obtained from the at

least one client during the voice interaction *(agent enters prompt information into the system*

based on client response, Col. 11, Lines 7-44);

Logging the voice interaction as a portion of a log record *(Col. 5, Line 46- Col. 6, Line 39; Col. 6, Lines 53-66; and recording an audio interaction, Col. 7, Lines 1-60)*;

Based on the logging, evaluating the at least one voice interaction with at least one automatic speech recognition component adapted to analyze the at least one voice interaction *(interaction evaluation through speech recognition, Col. 7, Line 45- Col. 8, Line 15; and Col. 13, Lines 4-27)*; and

Determining via the confidence level thresholds of the at least one automatic speech recognition component and obtained using a score evaluated against a static or a varying standard whether the at least one agent has adequately followed the at least one script by using the evaluated at least one voice interaction *(evaluating the interaction through speech recognition and determining if the script was followed according to various predetermined evaluation criteria, Col. 6, Lines 24-39; and Col. 7, Line 45- Col. 8, Line 15; and various speech recognition predetermined evaluation criteria decisions linked to the likelihood of speaking a word/phrase properly, Col. 6, Lines 24-39; Col. 7, Line 45- Col. 8, Line 15; Col. 10, Lines 15-23; and Col. 13, Lines 4-27)*.

Walker does not specifically disclose assigning time displacement timestamps to a plurality of prompt message panels during a voice interaction or panel-by-panel playback, however, Brockman recites a means for recording time stamps in a transaction log during a seller-client interaction that indicate an elapsed time point of a particular step *(i.e., panel)* in an interaction *(i.e., time displacement)* as well as the duration of the interaction step *(Col. 7, Lines 29-49; Col. 6, Lines 1-8; speech recognition processing means, Col. 5, Lines 47-55; recorded*

voice interactions, Col. 8, Lines 8-28; and selective playback of certain time-stamped steps, Col.

7, Lines 29-49; and Col. 8, Lines 8-28).

Walker and Brockman are analogous art because they are from a similar field of endeavor

in customer service analysis systems using speech recognition. Thus, it would have been

obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings

of Walker with the time stamps taught by Brockman in order to permit a manager to confirm

with reasonable confidence that the seller is performing appropriate steps at specific times

(Brockman, Col. 7, Lines 35-39).

Although, as pointed out above, Walker teaches applying recognition scores to a

confidence threshold, the combination of Walker and Brockman fails to teach that a recognition

score is compared to both static and variable thresholds. Sukkar, however, recites comparing an

utterance recognition confidence score to a combination of these thresholds *(Col. 7, Lines 30-*

49).

Walker, Brockman, and Sukkar are analogous art because they are from a similar field of

endeavor in speech analysis systems using speech recognition. Thus, it would have been obvious

to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Walker

in view of Brockman with the confidence thresholds taught by Sukkar in order to better verify a

speech recognition result *(Sukkar, Col. 7, Lines 30-49).*

With respect to **Claim 2**, Walker discloses the method wherein the live agent is a

telemarketing agent *(Col. 5, lines 40-45).*

With respect to **Claim 3**, Walker discloses the method wherein the script includes an

offer of goods *(figure 6 and Col. 11, lines 30-44).*

With respect to **Claim 4**, Walker discloses the method wherein said voice interaction is carried on a communications network *(Col. 3, Lines 40-56; and Col. 5, Lines 41-45)*.

With respect to **Claim 5**, Walker discloses the method wherein said communications network is a publicly switched telephone network *(telephone line, Col. 3, line 52; and Col. 5, Lines 41-45)*.

With respect to **Claim 8**, Walker discloses the method the voice interaction is a telephone call *(Col. 5, lines 40-45)*.

With respect to **Claim 9**, Walker discloses the method wherein said live customer client initiates said telephone call *(telephone ordering, Col. 5, lines 40-45 with Col. 12, lines 63-65)*.

With respect to **Claim 10**, Walker discloses the method wherein the telephone call is initiated by an entity other than the at least one client *(telemarketing, Col. 5, Lines 40-45)*.

With respect **Claim 12**, Walker discloses the method further comprising the step of: performing an action based *(bonus earned)* upon a determination obtained from said evaluating step *(Col. 6, lines 24-39)*.

With respect to **Claim 13**, Walker discloses the method but wherein performing an action comprises transmitting a signal *(audio signal transmitted)* to said live agent corresponding to said determination *(Col. 9, line 59 – Col. 10, line 5)*.

With respect to **Claim 14**, Walker discloses:

Performing an action comprises transmitting a signal to a reviewing authority corresponding to said determination *(billing system in communication with an operator database, Col. 6, Lines 24-39)*.

With respect to **Claim 15**, Walker recites:

Performing an action comprises causing an entry to be made in a script compliance

incentive system *(operator database, Col. 5, Line 46- Col. 6, Line 39)*.

With respect to **Claim 16,** Walker discloses the method comprising: reviewing the

determination of whether the at least one agent has adequately followed the at least one script

(bonus based on script compliance percentage, Col. 6, lines 24-28).

With respect to **Claim 17,** Walker discloses the method wherein the score *(percentage;*

Col. 6, lines 24-28) is assigned by the automatic speech recognition component *(SCRAPI; Col. 8,*

lines 6-11).

With respect to **Claim 18,** Walker discloses:

Evaluating a plurality of panels *(evaluating an interaction for a plurality of voice*

messages, Col. 5, Line 46- Col. 6, Line 39; and Fig. 6).

With respect to **Claim 19,** Walker discloses:

Assigning a respective score to each one of the panels *(score associated with a recited*

voice message, Col. 6, Lines 24-39).

With respect to **Claim 20,** Walker further discloses:

Comparing data representing an actual duration of at least one interaction, wherein the at

least one agent reads at least one script to the at least one client, to data representing an expected

duration parameter associated with the at least one interaction *(time period during which a*

message should be spoken by an agent, Col. 8, Line 63- Col. 9, Line 15).

With respect to **Claims 21-22,** Walker further discloses:

Disposition at least one interaction, wherein the at least one agent reads at least one script

to the at least one client, based at least in part on a comparison of data representing an actual

duration of the at least one interaction to data representing an expected duration parameter

associated with the at least one interaction *(determining if a displayed message is recited in a*

specific duration and if not providing a reprompt to an agent, Col. 8, Line 13- Col. 9, Line 35).

Claim 23 contains subject matter similar to Claims 1 and 12, and thus, is rejected for the

same reasons. Walker also discloses system implementation in a telemarketing environment

(Col. 5, Lines 41-45).

With respect to **Claim 24**, Walker discloses:

The communication network comprises at least one long distance telephone network

(remote communication media comprising telephone line; and telemarketing, Col. 3, Lines 40-

56; and Col. 5, Lines 41-45).

Claim 28 contains subject matter similar to Claim 2, and thus, is rejected for the same

reasons.

With respect to **Claim 30**, Walker further discloses:

Transmitting at least one signal to the at least one agent *(transmitting a message to an*

agent, Col. 13, Lines 4-27).

Claim 31 contains subject matter similar to Claim 14, and thus, is rejected for the same

reasons.

Claim 32 contains subject matter similar to Claim 15, and thus, is rejected for the same

reasons.

With respect to **Claim 33**, Walker discloses:

Identifying at least one instance of non-compliance with the script, wherein the agent did not adequately follow the script during at least one interaction *(identifying incorrectly spoken messages, Col. 6, Lines 24-39; and Col. 13, Lines 11-27).*

With respect to **Claim 34**, Walker further discloses:

Obtaining a voice record of at least a portion of at least one voice interaction *(recorded speech from an agent, Col. 7, Lines 45-60).*

With respect to **Claim 35**, Walker further discloses:

Obtaining a least a portion of a voice record of at least a portion of a suggested interaction that is related to the at least one instance of non-compliance *(obtaining a prompt message for comparison with a voice interaction, Col. 7, Line 46- Col. 8, Line 15; and Col. 9, Lines 16-35).*

With respect to **Claim 36**, Walker further discloses:

Obtaining at least a portion of a pre-recorded voice record *(obtained voice is recorded prior to analysis, Col. 4, Lines 34-55; and Col. 7, Line 45- Col. 8, Line 15).*

With respect to **Claim 37**, Walker further discloses:

Recording at least a portion of a second interaction as the further voice record after identifying that at least one instance of non-compliance *(obtaining additional messages spoken incorrectly in determining an appropriate action, Col. 6, Lines 24-39).*

With respect to **Claim 38**, Walker further discloses:

Providing at least the portion of the voice record of the at least one voice interaction and the voice record of the suggested interaction to the agent *(differences between agent interaction and a suggested interaction, Col. 13, Lines 11-27).*

With respect to **Claim 41**, Walker further discloses:

Directing the agent to remedial materials related to improving performance of the agent

(directing an agent's attention to correct prompts/phrases/words that will improve performance,

Col. 13, Lines 4-27; and Col. 16, Lines 29-33).

With respect to **Claim 42**, Walker further discloses:

Providing the agent with data representing at least one aspect in which the agent's

handling of at least one interaction was deficient *(Col. 13, Lines 4-27; and Col. 16, Lines 29-33).*

7.   **Claims 6-7, 25-27, and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Walker et al in view of Brockman et al in view of Sukkar and further in view of Stuart et al

(U.S. Patent: 6,868,154).

With respect to **Claim 6**, Walker in view of Brockman and further in view of Sukkar

discloses the method/system for evaluating a voice interaction between a telemarketing agent and

a customer, as applied to Claim 1. Walker in view of Brockman in view of Sukkar does not

specifically suggest communication over the Internet, however, Stuart recites communications

between a calling party and a service agent, conducted over the Internet *(Col. 6, Lines 52-64).*

Walker, Brockman, Sukkar and Stuart are analogous art because they are from a similar

field of endeavor in systems utilizing speech recognition. It would have been obvious to a

person of ordinary skill in the art, at the time of invention, to modify the teachings of Walker in

view of Brockman in view of Sukkar with Internet-based customer communication scheme

taught by Stuart in order to expand upon the available networks taught by Walker, thus providing

an alternate and well-known means of connecting a calling party to an agent *(Stuart, Col. 6,*

Lines 43-64).

   With respect to **Claim 7**, Stuart further discloses wireless communication between a

calling party and an agent *(Col. 6, Lines 52-64; and Col. 11, Lines 45-47).*

   Claim 25 contains subject matter similar to Claim 6, and thus, is rejected for the same

reasons.

   With respect to **Claim 26**, Stuart further discloses workstations for a plurality of agents

(Col. 6, Line 52- Col. 7, Line 30).

   With respect to **Claim 27**, Stuart further discloses an agent input device for

communicating over a telephone network and a workstation terminal *(Col. 6, Lines 52-64).*

   With respect to **Claim 29**, Stuart further discloses a plurality of customer service agents

(Col. 6, Lines 43-64).

8.   **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al in

view of Brockman et al in view of Sukkar and further in view of Rtischev et al *(U.S. Patent:*

5,634,086).

   With respect to **Claim 11**, Walker in view of Brockman et al in view of Sukkar discloses

the method/system for evaluating a voice interaction between an agent and a customer utilizing

speech recognition, as applied to Claim 1. Walker further discloses providing a voice interaction

script compliance module accessible via a user interface terminal and a communication network

including a telephone or wireless network *(Col. 3, Lines 23-56; and Fig. 1).* Although Walker

discloses comparison of a spoken input to a vocabulary containing words and phrases *(Col. 7,*

Line 66- Col. 8, Line 15) and conversion of an input audio signal *(Col. 4, Lines 23-33)*, Walker

in view of Brockman et al in view of Sukkar does not explicitly teach the conversion of input

speech into a digital signal comprising at least one spectral representation, however, Rtischev

discloses such a conversion process:

Converting data representing the voice interaction into a digital signal comprising a

spectral representation of the voice interaction *(Col. 1, Lines 44-54; Col. 4, Lines 51-58; and

Col. 5, Lines 4-27)*;

Comparing the digital signal to a reference standard comprising a known vocabulary

(Col. 5, Lines 4-27); and

Matching the digital signal to words and phrases contained in the reference standard *(Col.

5, Line 4- Col. 6, Line 5)*.

Walker, Brockman, Sukkar, and Rtischev are analogous art because they are from a

similar field of endeavor in speech recognition. Thus, it would have been obvious to a person of

ordinary skill in the art, at the time of invention, to modify the teachings of Walker in view of

Brockman et al in view of Sukkar with the speech input conversion means taught by Rtischev in

order to provide pre-processing used to implement speech recognition in Walker *(Walker Col. 7,

Line 66- Col. 8, Line 15)*.

9.   **Claims 39 and 43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker

et al in view of Brockman et al in view of Sukkar and further in view of Blair *(U.S. Patent:

7,203,285)*.

With respect to **Claim 39**, Walker in view of Brockman in view of Sukkar discloses the method/system for evaluating a voice interaction between an agent and a customer utilizing speech recognition, as applied to Claim 35. Walker in view of Brockman in view of Sukkar does not specifically suggest that given and suggested voice interactions are converted to a different format, however Blair discloses converting such voice interactions into a GUI screen format *(Col. 6, Lines 37-46; and Col. 12, Line 56- Col. 13, Line 12).*

Walker, Brockman, Sukkar and Blair are analogous art because they are from a similar field of endeavor in systems utilizing speech recognition. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Walker in view of Brockman in view of Sukkar with the fault-finding GUI taught by Blair in order to better improve business processes, train agents, and identify problems *(Blair, Col. 3, Lines 31-35).*

With respect to **Claim 43**, Blair discloses the GUI as applied to Claim 39 and further notes that mistakes in a call flow are highlighted *(Col. 5, Lines 15-19).*

10.   **Claim 40 is** rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al in view of Brockman et al in view of Sukkar and further in view of Macleod Beck et al *(U.S. Patent: 6,910,072).*

With respect to **Claim 40**, Walker in view of Brockman in view of Sukkar discloses the method/system for evaluating a voice interaction between an agent and a customer utilizing speech recognition, as applied to Claim 35. Walker in view of Brockman in view of Sukkar does not specifically suggest a means for notifying an agent of performance via e-mail, however

Macleod Beck discloses a means for emailing performance review data to an agent *(Col. 29, Lines 26-46)*.

Walker, Brockman, Sukkar, and Macleod Beck are analogous art because they are from a similar field of endeavor in systems utilizing speech recognition. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Walker in view of Brockman in view of Sukkar with the email means taught by Macleod Beck in order to provide a means for directly providing an activity review that is only accessible by the intended agent *(Macleod Beck, Col. 29, Lines 26-46)*.

11.   **Claims 44-50, 52-54, 56-58, 62, 64, and 67-69** are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarano et al *(U.S. Patent: 7,076,427)* in view of Katz *(WO 94/21084) (referenced in the parent application 09/785,048)* in view of Walker et al and further in view of in view of Sukkar.

With respect to **Claims 44 and 69**, Scarano discloses:

Identifying at least one interaction handled by at least one agent, which interaction is deficient in at least one aspect *(identifying if a desired word/phrase/sequence is not detected, Col. 8, Lines 58-67)*;

Obtaining a voice record of at least a portion of the at least one interaction *(indexed voice interaction, Col. 11, Lines 1-62; Col. 13, Lines 7-19)*;

Obtaining a further voice record of at least a portion of at least a further pre-recorded interaction or a plurality of pre-recorded interaction, wherein the plurality of pre-recorded interactions are stored in a library or data store containing exemplary interactions by the at least

one agent made available for future reference in which the at least one aspect is not deficient

(script adherence that identified the presence of required statements, Col. 8, Lines 58-67; Col. 9,

Lines 22-32, which are stored in a searchable audio format library for future reference, Col.10,

Line 60- Col. 11, Line 61); and

Transmitting data representing at least the portions of the voice record and the further

voice record to the at least one agent *(transmitting indexed call data and associated evaluations*

to a customer service representative client workstation, Col. 3, Lines 11-44; and Col. 11, Lines

1-62).

Scarano does not specifically disclose storing a video recording of an interaction,

however, Katz recites a telemarketing application in which an agent is monitored using audio

and video recordings *(Pages 8, 24, and 27-29)*.

Scarano and Katz are analogous art because they are from a similar field of endeavor in

customer service monitoring. Thus, it would have been obvious to a person of ordinary skill in

the art, at the time of invention, to modify the teachings of Scarano with the video monitoring

taught by Katz in order to implement more effective agent monitoring *(Katz, Pages 15-16)*.

Scarano does teach confidence thresholds for speech recognition *(Col. 16, Lines 43-53)*,

but this subject matter was part of the applicants' parent application *(09/785,048) (filed on*

2/15/2001) (see Col. 12, Lines 18-44 of corresponding U.S. Patent: 7,191,133) although not as

part of this embodiment in claim 44), which is prior to the date of Scarano such that Scarano will

not be relied upon to teach this feature. Walker, however, recites:

Determining via the confidence level thresholds of the at least one automatic speech

recognition component and obtained using a score evaluated against a static or a varying

standard whether the at least one agent has adequately followed the at least one script by using the evaluated at least one voice interaction *(evaluating the interaction through speech recognition and determining if the script was followed according to various predetermined evaluation criteria, Col. 6, Lines 24-39; and Col. 7, Line 45- Col. 8, Line 15; and various speech recognition predetermined evaluation criteria decisions linked to the likelihood of speaking a word/phrase properly, Col. 6, Lines 24-39; Col. 7, Line 45- Col. 8, Line 15; Col. 10, Lines 15-23; and Col. 13, Lines 4-27).*

Scarano, Katz, and Walker are analogous art because they are from a similar field of endeavor in customer service monitoring. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Scarano in view of Katz with the ASR confidence thresholds taught by Walker in order to provide a more automated means for monitoring a customer service agent *(Walker, Col. 1, Lines 54-59).*

Although, as pointed out above, Walker teaches applying recognition scores to a confidence threshold, the combination of Scarano, Katz, and Walker fails to teach that a recognition score is compared to both static and variable thresholds. Sukkar, however, recites comparing an utterance recognition confidence score to a combination of these thresholds *(Col. 7, Lines 30-49).*

Scarano, Katz, Walker, and Sukkar are analogous art because they are from a similar field of endeavor in speech analysis systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Scarano, Katz, and Walker with the confidence thresholds taught by Sukkar in order to better verify a speech recognition result *(Sukkar, Col. 7, Lines 30-49).*

With respect to **Claim 45**, Scarano further recites:

Identifying at least one QA-related parameter applicable to at least one interaction

involving the at least one agent *(quality control speech monitoring, Col. 10, Lines 33-46).*

With respect to **Claim 46**, Scarano further discloses:

Analyzing the at least one interaction against the at least one QA-related parameter

(analyzing a voice interaction for the presence of required statements, Col. 9, Lines 22-32; and

Col. 10, Lines 33-46).

With respect to **Claim 47**, Scarano further discloses:

Identifying at least one interaction wherein the at least one agent does not comply with at

least part of a pre-defined script governing the at least one interaction *(identifying required*

statements as a part of script adherence monitoring, Col. 9, Lines 22-32; and Col. 10, Lines 33-

46).

With respect to **Claim 48**, Scarano further discloses:

Identifying at least one interaction wherein the at least one agent fails to correctly enter

data provided by a third party into a computer based system *(order validation, Col. 10, Lines 33-*

46).

With respect to **Claim 49**, Scarano further discloses:

Identifying at least one interaction wherein the at least one agent provides an incorrect

response to a question from a third party *(compliance assurance in a customer service*

environment, Col. 10, Lines 19-46).

With respect to **Claim 50**, Scarano further discloses:

Recording at least a portion of at least one interaction processed by at least one agent physically located at a call center *(call center having customer service representative (CSR) workstations, Col. 3, Lines 11-44).*

With respect to **Claim 52**, Scarano further discloses:

Obtaining a further voice record includes obtaining at least a portion of a pre-recorded interaction *(stored call audio data, Col. 7, Lines 28-35; and Col. 12, Lines 6-18).*

With respect to **Claim 53**, Scarano further discloses:

Accessing at least one data store containing data representing at least respective portions of a plurality of pre-recorded interactions *(accessing recorded audio files on a server, Col. 11, Line 12- Col. 12, Line 18).*

With respect to **Claim 54**, Scarano further discloses:

Recording at least a portion of a further interaction occurring subsequently to the at least one interaction *(multiple indexed voice interaction portions, Col. 9, Lines 9-21).*

With respect to **Claim 56**, Scarano further shows:

Transmitting to the at least one agent at least one screen shot representation of a computer screen related to the at least one interaction *(Fig. 17).*

With respect to **Claim 57**, Scarano further discloses:

Transmitting to the at least one agent data representing at least a portion of a pre-defined script with which the at least one agent failed to comply *(script adherence analysis, Col. 10, Lines 33-46; and Fig. 17).*

With respect to **Claim 58**, Scarano further discloses:

Transmitting to the at least one agent data representing information enter incorrectly by

the at least one agent into a computer-based system *(order validation and provided call details,*

Col. 10, Lines 33-46; and Fig. 17).

With respect to **Claim 62**, Scarano further discloses:

Converting the voice record into a format suitable for transmission to at least one agent

physically located in a call center *(audio signal conversion, Col. 11, Lines 12-38).*

Claim 64 contains subject matter similar to Claim 62, and thus, is rejected for the same

reasons.

With respect to **Claim 67**, Scarano further discloses:

Accessing a data store adapted to correlate respective portions of a pre-defined script

governing at least a portion of the at least one interaction to respective fields in the data store that

store respective suggested voice records corresponding to the respective portions of the script

(indexed audio recordings/script adherence, Col. 9, Line 22- Col. 10, Line 46).

With respect to **Claim 68**, Scarano in view of Katz in view of Walker in view of Sukkar

discloses the agent evaluation method, as applied to Claim 44, wherein Scarano discloses that

such a method can be implemented as a program on a computer, which would inherently require

some type of memory for program storage *(Col. 8, Lines 58-67).*

12.   **Claims 51, 63, and 65** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Scarano et al in view of Katz in view of Walker et al in view of Sukkar and further in view of

Eilbacher et al *(U.S. Patent: 6,724,887).*

With respect to **Claim 51**, Scarano in view of Katz in view of Walker in view of Sukkar discloses the method/system for evaluating a voice interaction between an agent at a call center and a customer utilizing speech recognition, as applied to Claim 50. Although well known in the art, Scarano does not explicitly disclose that an agent may be located remotely from a call center, however, Eilbacher discloses such a location of a call agent *(Col. 6, Lines 42-49)*.

Scarano, Katz, Walker, Sukkar and Eilbacher are analogous art because they are from a similar field of endeavor in speech analysis systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Scarano in view of Katz in view of Walker in view of Sukkar with the remote agent location taught by Eilbacher in order to expand the range and number of available call agents using a well-known remote agent configuration that is interchangeable with a in-house agent *(Eilbacher, Col. 6, Lines 42-49)*.

Claims 63 and 65 contain subject matter similar to Claims 51 and 62, and thus, are rejected for the same reasons.

13.   **Claims 55 and 66** are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarano et al in view of Katz in view of Walker et al in view of Sukkar and further in view of Macleod Beck et al *(U.S. Patent: 6,910,072)*.

With respect to **Claim 55**, Scarano in view of Katz in view of Walker in view of Sukkar discloses the method/system for evaluating a voice interaction between an agent and a customer utilizing speech recognition, as applied to Claim 44. Scarano in view of Katz in view of Sukkar does not specifically suggest a means for notifying an agent of performance via e-mail, however

Macleod Beck discloses a means for emailing performance review data to an agent *(Col. 29, Lines 26-46)*.

Scarano, Katz, Walker, Sukkar, and Macleod Beck are analogous art because they are from a similar field of endeavor in speech analysis systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Scarano in view of Katz in view of Walker in view of Sukkar with the email means taught by Macleod Beck in order to provide a means for directly providing an activity review that is only accessible by the intended agent *(Macleod Beck, Col. 29, Lines 26-46)*.

Claim 66 contains subject matter similar to Claim 55 and 62, and thus is rejected for the same reasons.

14.   **Claims 59-61** are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarano et al in view of Katz in view of Walker et al and further in view of McIllwaine et al *(U.S. Patent: 6,324,282)*.

With respect to **Claims 59-61**, Scarano in view of Katz in view of Walker in view of Sukkar discloses the method/system for evaluating a voice interaction between an agent and a customer utilizing speech recognition, as applied to Claim 44. Scarano in view of Katz in view of Walker in view of Sukkar does not specifically suggest providing remedial training documents/programs to an agent. McIllwaine, however, discloses a method/system for QA monitoring that directs agents to specific training materials and software based on monitoring results *(Col. 5, Line 52- Col. 6, Line 39; Col. 7, Lines 56-65; and Col. 10, Lines 4-14)*.

Scarano, Katz, Walker, Sukkar, and McIllwaine are analogous art because they are from a similar field of endeavor in speech analysis systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Scarano in view of Katz in view of Sukkar with the training material distribution means taught by McIllwaine in order to provide customized training to agents most in need of training *(McIllwaine, Col. 10, Lines 33-58)*.

Conclusion

15.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure: See PTO-892.

17.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632.

The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Richemond Dorvil can be reached at (571) 272-7602. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/James S. Wozniak/
Primary Examiner, Art Unit 2626